

Application No. 10/789,131
Amendment dated June 19, 2007
Reply to Office Action of March 22, 2007

Docket No.: 022058.0101PTUS

REMARKS

Claims 1 – 14 are pending in this application. Applicant has cancelled claims 3 and 10 and has amended claims 1, 2, 4 – 9, and 11 – 14.

In a Non-Final Office Action mailed 22 March 2007, claims 1 – 7 have been rejected under 35 USC 101 because the claimed invention is directed to non-statutory subject matter. In addition, claims 2 – 9 have been rejected under 35 USC 112, first paragraph, as failing to comply with the written description requirement. Applicant has amended claims 1 – 7 to traverse these rejections and provide the requisite structure to satisfy 35 USC 101 and 35 USC 112, first paragraph.

The Examiner rejected claims 1, 2, 6 – 9, 13, and 14 under 35 USC 102(e) as being anticipated by U.S. Patent No. 6,714,976 B1 issued to Wilson and claims 3 – 5 and 10 – 12 under 35 USC 103(a) as being unpatentable over Wilson in view of U.S. Patent No. 7,143,392 B2 issued to Li, noting with respect thereto:

Wilson discloses a system for monitoring operation of a software application that executes on a processor, comprising:

polling means, connected to said software application, for polling said software application to retrieve statistics data indicative of operation of said software application ("a controller 216 which interacts with the clients 212a-212n and the servers 214a-214n to monitor distributed applications running (operating) on the various client and server system. Controller 216 reads (retrieves) and writes to a data repository 220" col. 9, line 14-18, controller 216 reads (retrieves) data regarding of running (operating) of distributed applications); and

data repository means for storing said retrieved statistics data ("writes to a data repository 220" col. 9, line 18, a data repository stores the data regarding to running of distributed applications).

Applicant has reviewed the cited Wilson Patent and has amended the independent claims to properly distinguish Applicant's invention from the teachings of the Wilson Patent. In particular, the Wilson Patent describes the state of the art in monitoring and diagnosing systems as follows in column 2, line 6 – column 3, line 6:

The complexity of a distributed computing architecture makes diagnosing system failures and performance analysis a difficult task. The asynchronous and rapid nature of communications between the distributed network components complicates the task

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significantly. Accordingly, a diagnostic technician may have a difficult time in monitoring system operation in order to detect the events which cause system failure, or performance issues, such as performance bottlenecks, for example.

Responsive to this need for diagnostic and development tools, computer engineers have developed network monitoring systems which couple into the communication channels of the network to monitor transactions between clients and servers. These systems are often hardware devices that couple into the physical layer of the network system to monitor communications. Accordingly, this requires that each physical connection between a client and a server include an interconnected hardware device. These devices monitor the data transactions that occur. By generating records of these data transactions, a system technician can attempt to identify the events which lead to the system failure and performance degradation.

Although these systems work, they require that the hardware devices are capable of detecting and recording each data transaction that occurs between the client and the server. This requires that the hardware device read each packet of data being transferred across the network to determine if the data being sent is associated with the client or the server being monitored. However, the asynchronous and rapid nature of the data transactions that occur between clients and servers renders these devices susceptible to error for failure to detect every transaction that occurs. The technician may have only a partial record of the transactions which occurred between the client and the server, and therefore, an incomplete record that is unreliable for purposes of determining the cause of the system failure and performance problems.

Other management tools exist that map a centralized system management model onto a distributed environment by implementing an agent-console architecture. In this architecture, agents continuously poll the servers and log files for the system, the network, or the applications to collect usage data and to determine if any "exception" has occurred. The console is a central management station through which the command and control functions are implemented. This architecture has several shortcomings. First, the continuous polling function employs valuable resources and degrades server performance. This is particularly true for metrics that require fine grain analysis of system activity and require constant polling. Second, the agents are at the server component level. Thus, usage, performance and exception statistics are only available at the component level and no measure is provided for end-to-end resource utilization, and no measure of the other participating components is made. Also, data gathering provisions may not be performed in real-time.

An alternative approach proposed by certain framework vendors has included an application program interface (API) to a set of resources that management tools can employ to monitor system performance. This approach requires that existing distributed applications operating on the system be edited and re-compiled to include API calls to the various system monitoring resources. Accordingly, this is a generally as highly

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intrusive approach to system monitoring that is dependent upon the cooperation of every vendor providing an application program running on the distributed system.

Thus, the prior art either continuously polls and generates too much data or uses a custom API which overly filters the data. In response, the Wilson Patent responds only to a trigger event to gather data for monitoring and diagnostic purposes. As noted in the Wilson Patent in column 3, lines 9 – 33:

In accordance with principles of the invention is a method of monitoring a distributed computer system. Trigger events and associated data to be collected are defined. The occurrence of one of the trigger events at a client is detected while monitoring a connection between a client and a first server. Client data is collected in accordance with the one trigger event at the client. A controller is notified of the detecting of the occurrence of the one trigger event. The first server is notified of the occurrence of the trigger event. First server data is gathered by the first server, and the first server data is sent to the controller.

In accordance with another {sic} [another] aspect of the invention is a system for monitoring a distributed computer system. Machine executable code defines trigger events and associated data to be collected. Machine executable code detects occurrence of one of the trigger events at a client while monitoring a connection between a client and a first server. Machine executable code collects client data in accordance with the one trigger event at the client. Machine executable code notifies a controller of the detecting of the occurrence of the one trigger event. Machine executable code notifies the first server of the occurrence of the trigger event. Machine executable code gathers first server data by the first server, and machine executable code sends the first server data to the controller.

Thus, the Wilson Patent is solely oriented to a trigger-based paradigm, where client data is gathered once the trigger event is detected.

In contrast, Applicant's system for monitoring operation of a software application that executes on a processor "both uses the proprietary reporting Application Interface of the software application, as needed, while also bypassing the proprietary reporting Application Interface to directly poll the executing software application to perform a time-wise snapshot of the executing software application to thereby limit the amount of data generated, yet provide a more comprehensive view of the executing software application. The function polling system periodically checks the software application to determine which function is presently executing within the software application. The periodic polling of executing processes significantly reduces the amount of data collected, yet enables the application stakeholder to obtain a granularity of data relating to the executing software application .

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not available with existing software monitoring systems. The function polling system monitors all the functions embodied in the software application rather than selected functions to thereby avoid gaps in the coverage of the monitoring." (Abstract)

Applicant has amended independent claims 1 and 8 in order to align the claim language with these defined differences. Therefore, Applicant believes that claims 1 and 8 are allowable under 35 USC 102(e) over the cited Wilson Patent, because the Wilson Patent fails to show or suggest the structure recited in these amended claims. In addition, Applicant believes that claims 2, 4 - 7, 9, and 11 - 14 are also allowable under 35 USC 102(e) over the cited Wilson Patent, because these claims depend on allowable base claims.

The Examiner also rejected claims 3 - 5 and 10 - 12 under 35 USC 103(a) as being unpatentable over Wilson in view of U.S. Patent No. 7,143,392 B2 issued to Li. Claims 3 and 10 have been canceled, and Applicant believes that claims 4, 5, 11, and 12 are allowable under 35 USC 103(a) over the cited Wilson and Li Patents since these claims depend on allowable base claims.

In summary, Applicant has cancelled claims 3 and 10; has amended claims 1, 2, 4 - 9, and 11 - 14; and believes that claims 1, 2, 4 - 9, and 11 - 14 are allowable over the cited references.

In view of the above amendments and remarks, Applicant believes the pending application is in condition for allowance. Applicant believes no fee is due with this response. However, if a fee is due, please charge our Deposit Account No. 50-1848, under Order No. 022058.0101PTUS from which the undersigned is authorized to draw.

Respectfully submitted,
PATTON BOGGS LLP

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